Catalogue of American Amphibians and Reptiles.

John, R.R., H.D. Hedman, and R. Powell. 2012. *Anolis aeneus*.

Anolis aeneus Gray
Grenada Bush Anole

Anolis æneus Gray 1840:114. Type-locality, unknown (see **Remarks**). Holotype, British Museum (Natural History), London (BMNH) 1946.8.28.87, immature male, date of collection unknown, presented by Thomas Bell (examined by C. McCarthy at the request of the authors; see also Lazell 1980).

Anolius alligator: Court 1858:440.

Anolis trinitatis: Reinhardt and Lütken 1863:269 (part, see **Comment**).

Anolis alligator: Duméril and Bibron 1837:134 (part, *fide* Cope 1869, but see **Remarks**).

Anolis cepedii var. *gentilis* Garman 1887:34. Type-locality, "Petite Martinique, one of the Grenadines." Syntypes, Museum of Comparative Zoology (MCZ) 6163, an adult male (but see **Remarks**), Academy of Natural Sciences of Philadelphia (ANSP) 23006, an adult male, National Museum of Natural History (USNM) 39295, an adult male, all collected in February 1879 by Samuel W. Garman (not examined by authors). Burt and Burt (1931) and Underwood (1959) listed "*Anolis gentilis*" in their synonymies.

Anolis cepedii var. *cinereus* Garman 1887:35 (part). Type-locality, "[St. George('s),] Grenada." Syntypes, Museum of Comparative Zoology (MCZ) 6182, an adult male (but see **Remarks**), collected on 16 February 1879 by Samuel W. Garman (not examined by author). Burt and Burt (1931) listed "*Anolis cinereus*" in their synonymy.

Anolis roquet gentilis: Barbour 1937:131.

Dactyloa aenea: Schwartz and Henderson 1988:124.

• **CONTENT**. *Anolis aeneus* is monotypic.

• **DEFINITION**. *Anolis aeneus* is a moderately sized anole (maximum known SVL in males to 77 mm on Grenada, and to 80 mm in Guyana; females to 55 mm; Schwartz and Henderson 1991). Loreal rows number 3–4, scales between supraorbitals 0, scales between interparietal and supraorbital semicircles 0, postrostrals 3–4, and postmentals 4–6. Suboculars are in contact with the supralabials. Scales behind the interparietal grade gradually into dorsals. Dorsal body scales are swollen, slightly imbricate. Ventral scales are cycloid, smooth, and slightly imbricate. Supradigital scales are smooth.

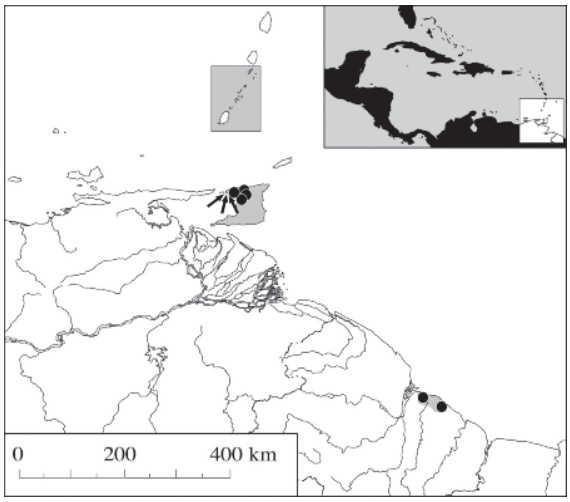
Dorsal ground color of males is gray, gray-brown, brown, bright green, or blue and yellow, with or without a bronzy sheen or green wash. A dark or light peppering of spots is usually present, often arranged in transverse bars. The orbital area is bluish, though not in sharp contrast with dorsal ground color. The dewlap is a dull gray-green, with scales varying from the same color to bright yellow and white. Ventral scales are gray. The dorsum of females is gray brown and the dorsal pattern can be obsolete or may include bold, dark middorsal stripes, a single stripe, or transverse bars.

FIGURE 1. Adult male *Anolis aeneus* from Union Island, St. Vincent and the Grenadines. Photographs by Robert Powell.

The karyotype is 2N = 34, 12V + 22m (2N = diploid number of chromosomes, V = bi-armed macrochromosomes, m = microchromosomes; Gorman 1973; Schwenk et al. 1982).

• **DIAGNOSIS**. *Anolis aeneus* can be distinguished from other Lesser Antillean anoles by the following combination of characters (Schwartz and Henderson 1985): smooth ventral scales (*A. lividus* and species in the *A. wattsi* complex have keeled ventrals), moderate size (*A. ferreus, A. griseus, A. richardii, A. oculatus*, and species in the *A. bimaculatus* complex reach maximum SVL ≥ 96 mm), male dorsum usually gray with a pattern (male *A. lividus, A. luciae, A. nubilus*, and *A. trinitatis* usually have an unpatterned dorsum), primary pattern elements form at least faint crossbands in males (*A. extremus, A. marmoratus*, and *A. sabanus* almost always lack any indication of crossbands), and eyeskin with a bluish cast (eyeskin is yellow in *A. gingivinus* and is colored like the dorsum in *A. roquet*).

• **DESCRIPTIONS**. In addition to the original descriptions, detailed descriptions may be found in Lazell (1972), Schwartz and Henderson (1991), and Murphy (1997).



Map 1. Distribution of *Anolis aeneus* showing localities for introduced populations on Trinidad (adapted from Murphy 1977) and the South American mainland. The box (see **Map 2** below) shows the Grenada Bank.

Map 2. Distribution of *Anolis aeneus* on the Grenada Bank (modified from Schwartz and Henderson 1991); the type-locality is too imprecise to plot (see **Remarks**), dots indicate localities on Grenada and arrows mark other islands on which the species is known to occur.

• **ILLUSTRATIONS**. Colored illustrations are in Lazell (1972) and Schwartz and Henderson (1985). Black-and-white sketches are included in Gorman (1986b), Barlow (1993), and Losos (2009). Color photographs are in Wijffels (1980), Stamps (1990), Roughgarden (1995), Murphy (1997), Malhotra and Thorpe (1999), Williamson et al. (2002), van Beest and Haberham (2003), FNPD (2006), Fläschendräger and Wijffels (2009), and Quinn et al. (2010). Black-and-white photographs are in Gorman (1968) and Wijffels (1997). Gorman and Atkins (1968) provided black-and-white photographs of meiosis and mitosis.

• **DISTRIBUTION**. *Anolis aeneus* is endemic to Grenada and the Grenadines, and has been introduced to Trinidad and Guyana (Schwartz and Henderson 1991). Murphy (1997) listed known localities on Trinidad and nearby satellite islands, but the species was not known from Tobago (e.g., Mertens 1969, 1974) until 2008 (G. White in Hailey and Cazabon-Mannette 2011). The species is found in both mesic and xeric habitats at elevations ranging from sea level to the highest peaks on Grenada. On the Grenada Bank, these lizards are found in both natural and severely disturbed habitats (as long as some vegetative structure remains); in contrast, introduced populations appear to be restricted to urban and suburban areas.

Parker (1933) listed six specimens in the British Museum from Barbados. Whether the locality data are erroneous, the specimens were incorrectly identified, or a propagule of the species once existed on Barbados is unknown.

• **FOSSIL RECORD**. None.

• **PERTINENT LITERATURE**. References to *Anolis aeneus* are arranged by topic: **behavior** (Boos 1977; Dennison 1977; Fleishman 1992; Gerber 1999; Gorman 1968, Gorman and Soulé 1974; Hailey 2005; Jenssen 1978; Moermond 1974, 1986; Ono 1981; Perry et al. 2008; Poche et al. 2005, Powell and Henderson 2008; Schoener and Schoener 1982; Schwartz and Henderson 1991; Smith and Peacock 1990; Stamps 1973, 1976b, 1977a,c,d, 1978, 1983a, b,c, 1984a,b, 1987a,b, 1988a,b, 1990b, 1991a, 1992, 1994, 1995; Stamps and Barlow 1973; Stamps and Buechner 1985, Stamps and Crews 1976; Stamps and Eason 1989; Stamps and Krishnan 1994a,b, 1995, 1997b, 1998; Stamps and Tanaka 1981a,b; Stamps and Tollestrup 1984; Stamps et al. 1997; White and Hailey 2006), **captive husbandry** (Fläschendräger and Wijffels 2009), **chromosomes** (Gorman 1973, Gorman and Atkins 1967, 1968; Schwenk et al. 1982; Yang et al. 1974), **competition** (with *A. richardii* [Buckley and Roughgarden 2006a; Losos 1990; Schoener 1970a,b], with *A. wattsi* on Trinidad [Hailey and White 2004; White and Hailey 2006]), **comparative morphology** (Lazell 1972; Glossip and Losos 1997 [subdigital lamellae]; Schoener 1969, 1970a [body size]), **distribution and zoogeography** (Boos 1967, 1984, 1990; Corke 1992; Gorman and Atkins 1969; Henderson and Powell 1999; Lazell 1972; Lever 2003; Murphy 1996; Underwood 1952; White and Hailey 2006; Williams 1977), **ecological and natural history notes** (Andrews 1979; Andrews et al. 1983; Daudin and de Silva 2007, 2011; Gorman 2010; Hailey et al. 2009; Harris et al. 2004; Henderson and Powell 2009; Holt 1977; Kraus 2009; Lazell

1972; McTaggart et al. 2011; Murphy 1997; Regal 1983; Schwartz and Henderson 1991; Stamps 1983c, 1990a; Stamps and Tanaka 1981b; Moermond 1977; Williamson et al. 2002; Yang et al. 1974), **ecological morphology** (Beuttell and Losos 1999; Glossip and Losos 1997; Irschick and Losos 1996; Irschick et al. 1997; Losos and de Queiroz 1997; Moermond 1986; Williams 1969, 1972, 1983), **foraging and diet** (Andrews 1979; Lazell 1972; Losos 2009; Moermond 1974; Roughgarden and Fuentes 1977; Schoener 1989; Schoener and Gorman 1968; Simmons et al. 2005; Stamps 1977a, 1978, 1983a,b; Stamps and Eason 1989; Stamps and Tanaka 1981a,b; Stamps et al. 1981, 1997; Timmermann et al. 2008), **genetic variability** (Gorman and Renzi 1979; Gorman et al. 1978; Gow et al. 2006), **hurricane effects** (Henderson and Berg 2005), **hybridization** (Boos 1977; Gorman 1969, 2003; Gorman and Atkins 1968; Gorman and Boos 1972; Gorman and Dessauer 1966; Gorman and Licht 1974; Gorman et al. 1971a; Gorman and Yang 1975; Hailey et al. 2009; Losos 2009; Mertens 1968; Quesnel and Kenny 1959, although they were not aware of interactions with *A. trinitatis* on Trinidad), **immunological and electrophoretic distances** (Shochat and Dessauer 1981; Wyles and Gorman 1980), **invasive propensity** (Wijffels 1997), **parasites and predation** (Goldberg et al. 1997; Henderson 1993, 2002; Pendlebury 1974; Quinn et al. 2011; Schall and Staats 1997; Staats and Schall 1996; Stamps 1983a,b, 1984b; Wunderle 1981), **phylogenetics and systematics** (Creer et al. 2001; Giannasi et al. 2000; Gorman and Atkins 1967; Gorman and Soulé 1974; Gorman et al. 1971b, 1980; Guyer and Savage 1986; Lazell 1972; Irschick et al. 1997; Jackman et al. 1997, 1999; Poe 1999, 2004; Roughgarden and Pacala 1989; Shochat and Dessauer 1977; Stamps et al. 1997; Thorpe and Stenson 2003; Williams 1976, 1983; Yang et al. 1974), **population density and island size** (Buckley and Roughgarden 2006b), **population density and structure** (Buckley and Roughgarden 2005a; Lazell 1972; Losos 2009; Harris et al. 2004; Henderson 2002; Henderson and Powell 1999; Roughgarden and Fuentes 1977; Roughgarden et al. 1983; Stamps 1977a,b, 1983a,c, 1990b; Stamps and Andrews 1992; Stamps and Buechner 1985; Stamps and Crews 1976; Stamps and Eason 1989; Stamps and Krishnan 1997a; Stamps and Tanaka 1981a,b; Stamps et al. 1994, 1997), **reproduction** (Fläschendräger and Wijffels 2009; Gorman 2010; Gorman and Licht 1975; Gorman et al. 1971a; Lazell 1972; Losos 2009; Schmidt 1980; Stamps 1975, 1976a, 1977a,b, 1983c, 1993; Stamps and Crews 1976), **sexual size dimorphism** (Fitch 1981), **taxonomy** (Cenksy and Kaiser 1999; Ruthven 1923; Williams 1976; Williams et al. 1995), and **thermal biology** (Buckley and Roughgarden 2005b; Roughgarden et al. 1981; Schoener and Gorman 1968; Stamps 1983a).

This species is included under various synonyms in **reviews, general works** (including phylogenies for which the species was used as an outgroup or broader-based studies in which this species was included), **guides, checklists, keys, and notes** by Ávila Pires (2005), Barbour (1914, 1930a,b, 1935, 1937), Barlow (1993), Beebe (1944), Bergmann (2008), Boos (1967, 1984, 1990), Boulenger (1885), Bromham and Woolfit (2004), Buckley and Jetz (2007), Burnell and Hedges (1990), Burt and Burt (1933), Carpenter (1986), Censky and Kaiser (1999), Cochran (1934, 1938), Daltry (2009), Etheridge (1959), Fläschendräger and Wijffels (1996), Frank and Ramus (1995), Germano et al. (2003), Glor et al. (2008), Groome (1970), Hailey and Cazabon-Mannette (2011), Hass et al. (1993), Henderson and Berg (2006, 2011), Henderson and Powell (1999, 2009), Henderson et al. (2009), Herrel et al. (2004), Heselhaus and Schmidt (1990), Hite et al. (2008), Irschick and Losos (1996), Johnson (1988), Kluge (1984), Lazell (1972), Lister (1976), Losos et al. (1993), MacLean et al. (1977), MacPhee et al. (2000), Macrini et al. (2003), Maher and Lott (2000), Mole and Urich (1894), Nicholson et al. (2005, 2007), O'Hare and Williams (1994), Ord and Blumstein (2002), Ord and Martins (2006), Ord et al. (2001, 2002), Parker (1935a,b), Perry and Garland (2002), Peters and Donoso-Barros (1970), Poe et al. (2008, 2011), Powell et al. (1996), Quinn et al. (2010), Rein-hardt and Lütken (1863), Roughgarden (1995), Sav-age and Guyer (1989), Schaad and Poe (2010), Schoener (1970a), Schulte and Moreno-Roark (2010), Schwartz and Henderson (1985, 1988, 1991), Schwartz and Thomas (1975), Shine and Bull (1979), Sites and Murphy (1991), Smith and Ballinger (2001), Stamps (1977e, 1983c, 1991b), Underwood (1962), van Beest and Haberham (2003), Vitt and Caldwell (2009), Walley (1997), Werner (1900), and Williams (1977). In addition, Johnson (1927) and Walls (1942) included references to *A. alligator* without listing the island of origin; consequently, we cannot be sure whether these refer to *A. aeneus* or other currently recognized species once included under the umbrela of *A. alligator*.

• **REMARKS**. In reference to the holotype, Underwood (1959) noted that "There is no evidence of locality at all," and that "Tropical America" was a later addition by Barbour (1914). C. McCarthy (in litt., 24. XI.2010) indicated that the provenance according to museum records is "S. America."

Duméril and Bibron (1837) made reference to *Anolis alligator* based on specimens from Martinique (obviously not *A. aeneus* as currently defined). However, *A. alligator* at that time was variously thought to include all or most of the species currently assigned to the *A. roquet* species group (which includes *A. aeneus*; e.g., Creer et al. 2001; see also **Comment**).

The type of *Anolis cepedii* var. *gentilis* at MCZ is part of a series of 18 specimens, one of which was randomly assigned the number MCZ-R-6163 and the others were recatalogued as MCZ-R-171171–87 (J. Rosado, in litt., 7.III.2011). Twelve are males (6163, 171171–78, 171184–85, 171187); the other six are females. Similarly, the type of *Anolis cepedii* var. *cinereus*, also at MCZ, is part of a series of 20 specimens (6182, 171410–28). Ten are males (6182, 171410–17, 171419) and the other ten are females.

The syntypes of "*Anolis gentilis*" at ANSP and USNM are in very poor condition, but appear to be adult males (N. Gilmore, in litt., 24.XI.2010; K. de Queiroz, in litt., 24.XI.2010).

• **ETYMOLOGY**. The name *aeneus* is perhaps derived from the Greek ΑΙΝΕΙΑΣ (= praise-worthy), although the intended meaning is uncertain.

• **COMMENT**. Some older references (e.g., Boulenger 1885, Garman 1887) considered populations of anoles from Lesser Antillean islands from Martinique south and those on Trinidad to be conspecific. Consequently, many early synonymies include names applied to populations no longer considered to be *A. aeneus*.

• **ACKNOWLEDGMENTS**. Colin McCarthy (BMNH), José Rosado (MCZ), Ned Gilmore (ANSP), and Kevin de Queiroz and Jeremy Jacobs (USNM) provided information on type-specimens in their care. Aaron M. Bauer, Adrian Hailey, Robert W. Henderson, and John C. Murphy helped locate obscure references. John S. Parmerlee, Jr. prepared the maps.

LITERATURE CITED

Andrews, R.M. 1979. Evolution of life histories: A comparison of *Anolis* lizards from matched island and mainland habitats. Brevoria (454):1–51.

–, A.S. Rand, and S. Guerrero. 1983. Seasonal and spatial variation in the annual cycle of a tropical lizard, p. 441–454. *In* A.G.J. Rhodin and K. Miyata (eds.), Advances in Herpetology and Evolutionary Biology: Essays in Honor of Ernest E. Williams. Mus. Comp. Zool., Cambridge, Massachusetts.

Ávila Pires, T.C.S. de. 2005. Reptiles, p. 25–40. *In* T. Hollowell and R.P. Reynolds (eds.), Checklist of the terrestrial vertebrates of the Guiana Shield. Bull. Biol. Soc. Washington (13).

Barbour, T. 1914. A contribution to the zoögeography of the West Indies, with especial reference to amphibians and reptiles. Mem. Mus. Comp. Zoöl. 44:205–359 + 1 pl.

–. 1930a. A list of Antillean reptiles and amphibians. Zoologica (N.Y.) 11:61–116.

–. 1930b. The anoles I. The forms known to occur on the Neotropical islands. Bull. Mus. Comp. Zoöl. 70:105–144.

–. 1935. A second list of Antillean reptiles and amphibians. Zoologica (N.Y.) 19:77–141

–. 1937. Third list of Antillean reptiles and amphibians. Bull. Mus. Comp. Zoöl. 82:77–166.

Barlow, V. 1993. The Nature of the Islands: Plants and Animals of the Eastern Caribbean. Chris Doyle Publ., Dunedin, Florida.

Beebe, W. 1944. Field notes on the lizards of Kartabo, British Guiana and Caripito, Venezuela. Part 2. Iguanidae. Zoologica 29:195–216.

Bergmann, P.J. 2008. A Phylogenetic Study and Functional Approach to the Study of the Evolution of Body Shape in Lizards (Squamata). Unpubl. Ph.D. Diss., Univ. Massachusetts, Amherst.

Beuttell, K. and J.B. Losos. 1999. Ecological morphology of Caribbean anoles. Herpetol. Monogr. 13: 1–28.

Boos, H.E.A. 1967. Reptiles on Huevos. Living World, J. Trinidad Tobago Fld. Nat. Club 1967: 15–18.

–. 1977. Iguana – relict of the dinosaur age (Part 2). Trinidad Nat. 1(11):24–30.

–. 1984. A consideration of the terrestrial reptile fauna on some offshore islands north west of Trinidad. Living World, J. Trinidad Tobago Fld. Nat. Club 1983–1984:19–26.

–. 1990. Additions to the terrestrial fauna of the offshore islands north-west of Trinidad. Living World, J. Trinidad Tobago Fld. Nat. Club 1989–1990:9.

Boulenger, G.A. 1885. Catalogue of the Lizards in the British Museum (Natural History). Vol. II. Trustees (Brit. Mus.), London.

Bromham, L. and M. Woolfit. 2004. Explosive radiations and the reliability of molecular clocks: Island endemic radiations as a test case. Syst. Biol. 53: 758–766.

Buckley, L.B. and W. Jetz. 2007. Insularity and the determinants of lizard population density. Ecol. Lett. 10:481–489.

– and J. Roughgarden. 2005a. Effects of species interactions on landscape abundance patterns. J. Anim. Ecol. 74:1182–1194.

– and –. 2005b. Lizard habitat partitioning on islands: The interaction of local and landscape scales. J. Biogeogr. 32:2113–2121.

– and –. 2006a. Climate, competition, and the coexistence of island lizards. Funct. Ecol. 20:315–322.

– and –. 2006b. A hump-shaped density-area relationship for island lizards. Oikos 113:243–250.

Burnell, K.L. and S.B. Hedges. 1990. Relationships of West Indian *Anolis* (Sauria: Iguanidae): An approach using slow-evolving protein loci. Carib. J. Sci. 26:7–30.

Burt, C.E. and M.D. Burt. 1933. A preliminary check list of the lizards of South America. Trans. Acad. Sci. St. Louis 28:1–104.

Carpenter, C.C. 1986. An inventory of the display-action patterns in lizards. Smithson. Herpetol. Info. Serv. (68):1–18.

Censky, E.J. and H. Kaiser. 1999. Lesser Antillean herpetofauna, p. 181–221. *In* B.I. Crother (ed.), Caribbean Amphibians and Reptiles. Academic Press, San Diego, California.

Cochran, D.M. 1934. Herpetological collections from the West Indies made by Dr. Paul Bartsch under the Walter Rathbone Bacon Scholarship, 1928–1930. Smithson. Misc. Coll. (92):1–48.

–. 1938. Reptiles and amphibians from the Lesser Antilles collected by Dr. S.T. Danforth. Proc. Biol. Soc. Washington 51:147–156.

Cope, E.D. 1869. Seventh contribution to the herpetology of Tropical America. Proc. Amer. Philos. Soc. 11:147–169.

Corke, D. 1992. The status and conservation needs of the terrestrial herpetofauna of the Windward Islands (West Indies). Biol. Conserv. 62:47–58.

Court, J. 1858. Catalogue of reptiles, p. 440–446. *In* L.A.A. Verteuil, Trinidad: Its Geography, Natural Resources, Administration, Present Condition, and Prospects. Ward and Lock, London.

Creer, C.A., K. DeQueiroz, T.R. Jackman, J.B. Losos, and A. Larson. 2001. Systematics of the *Anolis roquet* series of the southern Lesser Antilles. J. Herpetol. 35:428–441.

Daltry, J.C. 2009. The status and management of Saint Lucia's forest amphibians and reptiles. Tech. Rept. 2. Finnish Consulting Grp. Intl. Ltd., Helsinki, Finland.

Daudin, J. and M. de Silva. 2007. An annotated checklist of the amphibians and terrestrial reptiles of the Grenadines with notes on their local natural history and conservation. Appl. Herpetol. 4:163–175.

– and –. 2011. An annotated checklist of the amphibians and terrestrial reptiles of the Grenadines with notes on their local natural history and conservation, p. 259–271. *In* A. Hailey, B.S. Wilson, and J.A. Horrocks (eds.), Conservation of Caribbean Island Herpetofaunas. Vol. 2: Regional Accounts of the West Indies. Brill, Leiden, The Netherlands.

Dennison, A. 1977. Untitled, p. 24–25. *In* E.E. Williams (ed.), The Third Anolis Newsletter. Mus. Comp. Zool., Harvard Univ., Cambridge, Massachusetts.

Duméril, A.M.C. and G. Bibron. 1837. Erpétologie Générale ou Histoire Naturelle Complète des Reptiles. Vol. 4. Libr. Encyclopédique Roret, Paris.

Etheridge, R. 1959. The Relationships of the Anoles (Reptilia: Sauria: Iguanidae): An Interpretation based on Skeletal Morphology. Ph.D. Diss., Univ. Michigan, Ann Arbor.

Fläschendräger, A. and L. Wijffels. 1996. *Anolis* in Biotop und Terrarium. Natur und Tier Verlag, Matthias Schmidt, Münster.

– and –. 2009. *Anolis*. 2. Vollständig überarbeitete und erweitere Auflage. Natur und Tier, Münster, Germany.

Fitch, H.S. 1981. Sexual size differences in reptiles. Misc. Publ. Mus. Nat. Hist. Univ. Kansas (70):1–72.

Fleishman, L.J. 1992. The influence of the sensory system and the environment on motion patterns in the visual displays of anoline lizards and other vertebrates. Am. Nat. (suppl.) 139:S36–S61.

FNPD (Forestry and National Parks Department, Dry Forest Biodiversity Conservation Project). 2006. Reptiles and Amphibians. Grenada Lowland Dry Forests. Queens Park, St. George's, Grenada.

Frank, N. and E. Ramus. 1995. A Complete Guide to Scientific and Common Names of Reptiles and Amphibians of the World. NG Publ., Inc., Pottsville, Pennsylvania.

Garman, S. 1887. On the West Indian Teiidæ in the Museum of Comparative Zoology. Bull. Essex Inst. 19:1–12.

Gerber, G.P. 1999. A review of intraguild predation and cannibalism in *Anolis*, p. 28–39. *In* J.B. Losos and M. Leal (eds.), Anolis Newsletter V. Mus. Comp. Zool., Harvard Univ., Cambridge, Massachusetts.

Germano, J.M., J.M. Sander, R.W. Henderson, and R. Powell. 2003. Herpetofaunal communities in Grenada: A comparison of altered sites, with an annotated checklist of Grenadian amphibians and reptiles. Carib. J. Sci. 39:68–76.

Giannasi, N., R.S. Thorpe, and A. Malhotra. 2000. A phylogenetic analysis of body size evolution in the *Anolis roquet* group (Sauria: Iguanidae): Character displacement or size assortment? Mol. Ecol. 9:193–202.

Glor, R.E., L.J. Vitt, and A. Larson. 2001. A molecular phylogenetic analysis of diversification in Amazonian *Anolis* lizards. Mol. Ecol. 10:2661–2668.

Glossip, D. and J.B. Losos. 1997. Ecological correlates of number of subdigital lamellae in anoles. Herpetologica 53:192–199.

Goldberg, S.R., C.R. Bursey, and H. Cheam. 1997. Helminths of 12 species of *Anolis* lizards (Polychrotidae) from the Lesser Antilles, West Indies. J. Helminthol. Soc. Washington 64:248–257.

Gorman, G.C. 1968. The relationships of *Anolis* of the *roquet* species group (Sauria: Igaunidae) - III. Comparative study of display behavior. Breviora (284):1–31.

–. 1969. Intermediate territorial display of a hybrid *Anolis* lizard (Sauria: Iguanidae). Z. Tierpsychol. 26:390–393.

–. 1973. The chromosomes of the Reptilia, a cytotaxonomic interpretation, p. 347–424. *In* A.B. Chiarelli and E. Capanna (eds.), Cytotaxonomy and Vertebrate Evolution. Academic Press, London and New York.

–. 2003. The mule lizards of Trinidad: Jungle dreams and backyard explorations, p. 279–293. *In* R.W. Henderson and R. Powell (eds.), Islands and the Sea: Essays on Herpetological Exploration in the West Indies. Soc. Study Amphib. Rept., Contrib. Herpetol. (20), Ithaca, New York.

–. 2010. Rip Van Winkle attends the *Anolis* Symposium, wakes up, and shares some thoughts, p. 56–63. *In* D.L. Mahler, A. Herrel, and J.B. Losos (eds.), Anolis Newsletter VI. Mus. Comp. Zool., Harvard Univ., Cambridge, Massachusetts.

– and L. Atkins. 1967. The relationships of the *Anolis* of the *roquet* species group (Sauria: Iguanidae). II. Comparative chromosome cytology. Syst. Zool. 16:137–143.

– and –. 1968. Natural hybridization between two sibling species of *Anolis* lizards: Chromosome cytology. Science 159:1359–1360.

– and –. 1969. The zoogeography of Lesser Antillean *Anolis* lizards - an analysis based upon chromosomes and lactic dehydrogenases. Bull. Mus. Comp. Zool. 138:53–80.

– and J.O. Boos. 1972. Extinction of a local population of *Anolis* lizard through competition with a congener. Syst. Zool. 21:440–441.

–, D.G. Buth, and J.S. Wyles. 1980. *Anolis* lizards of the eastern Caribbean: A case study in evolution. III. A cladistic analysis of albumin immunological data, and the definition of species groups. Syst.

Zool. 29:143–158.
– and H.C. Dessauer. 1966. The relationships of *Anolis* of the *roquet* species group (Sauria: Iguanidae). I. Electrophoretic comparison of blood proteins. Comp. Biochem. Physiol. 19:845–853.
–, Y.J. Kim, and S.Y. Yang. 1978. The genetics of colonization: Loss of variability among introduced populations of *Anolis* lizards (Reptilia, Lacertilia, Iguanidae). J. Herpetol. 12:47–51.
– and P. Licht. 1974. The hybridizing anoles of Trinidad, p. 9. *In* E.E. Williams (ed.), The Second *Anolis* Newsletter. Mus. Comp. Zool., Harvard Univ., Cambridge, Massachusetts.
– and –. 1975. Differences between the reproductive cycles of sympatric *Anolis* lizards on Trinidad. Copeia 1975:332–337.
–, –, H.C. Dessauer, and J.O. Boos. 1971a. Reproductive failure among the hybridizing *Anolis* lizards on Trinidad. Syst. Zool. 20:1–18.
– and J. Renzi, Jr. 1979. Genetic distance and heterozygosity estimates in electrophoretic studies: Effects of sample size. Copeia 1979:242–249.
– and M. Soulé. 1974. A new interpretation of the *roquet* group, p. 8–9. *In* E.E. Williams (ed.), The Second *Anolis* Newsletter. Mus. Comp. Zool., Harvard Univ., Cambridge, Massachusetts.
–, A.C. Wilson, and M. Nakanishi. 1971b. A biochemical approach towards the study of reptilian phylogeny: Evolution of serum albumin and lactic dehydrogenase. Syst. Zool. 20:167–185.
– and S.Y. Yang. 1975. A low level of backcrossing between hybridizing *Anolis* lizards of Trinidad. Herpetologica 31:196–198.
Gow, J.L., H. Johansson, Y. Surget-Groba, and R.S. Thorpe. 2006. Ten polymorphic tetranucleotide microsatellite markers isolated from the *+* series of Caribbean lizards. Mol. Ecol. Notes 6:873–876.
Gray, J.E. 1840. Catalogue of the species of reptiles collected in Cuba by W.S. MacLeay, esq. - with some notes on their habits extracted from his MS. Ann. Mag. Nat. Hist., ser. 1, 5:108–115.
Groome, J.R. 1970. A Natural History of the Island of Grenada, West Indies. Carib. Printers, Ltd., Arima, Trinidad.
Guyer, C. and J. Savage. 1986. Cladistic relationships among anoles (Sauria: Iguanidae). Syst. Zool. 35:509–531.
Hailey, A. 2005. Introduced lizards in Trinidad and Tobago. UWI Today, 8 May:13.
– and M. Cazabon-Mannette. 2011. Conservation of herpetofauna in the Republic of Trinidad and Tobago, p. 183–217. *In* A. Hailey, B.S. Wilson, and J.A. Horrocks (eds.), Conservation of Caribbean Island Herpetofaunas. Vol. 1: Conservation Biology and the Wider Caribbean. Brill, Leiden, The Netherlands.
–, V.C. Quesnel, and H.E.A. Boos. 2009. The persistence of *Anolis trinitatis* as a naturalized lizard in Trinidad against hybridization pressure with *Anolis aeneus*. Appl. Herpetol. 6:275–294.
– and G. White. 2004. Creating an ecological community: Invasive *Anolis* lizards in Trinidad (abstract). Living World, J. Trinidad Tobago Fld. Nat. Club, Suppl.: 12.
Harris, B.R., D.T. Yorks, D.A. Bohnert, J.S. Parmerlee, Jr., and R. Powell. 2004. Population densities and structural habitats in lowland populations of *Anolis* lizards on Grenada. Carib. J. Sci. 40:31–40.
Hass, C.A., S.B. Hedges, and L.R. Maxson. 1993. Molecular insights into the relationships and biogeography of West Indian anoline lizards. Biochem. Syst. Ecol. 21:97–114.
Henderson, R.W. 1993. Foraging and diet in West Indian *Corallus enydris* (Serpentes: Boidae). J. Herpetol. 27:24–28.
–. 2002. Neotropical Treeboas: Natural History of the *Corallus hortulanus* Complex. Krieger Publ. Co., Malabar, Florida.
– and C.S. Berg. 2005. A post-Hurricane Ivan assessment of frog and reptile populations on Grenada, West Indies. Herpetol. Bull. (91):4–9.
– and –. 2006. The herpetofauna of Grenada and the Grenada Grenadines: Conservation concerns. Appl. Herpetol. 3:197–213.
– and –. 2011. The herpetofauna of Grenada and the Grenada Grenadines: Conservation concerns, p. 239–258. *In* A. Hailey, B.S. Wilson, and J.A. Horrocks (eds.), Conservation of Caribbean Island Herpetofaunas. Vol. 2: Regional Accounts of the West Indies. Brill, Leiden, The Netherlands.
– and R. Powell. 1999. West Indian herpetoecology, p. 223–268. *In* B.I. Crother (ed.), Caribbean Amphibians and Reptiles. Academic Press, San Diego.
– and –. 2009. Natural History of West Indian Reptiles and Amphibians. Univ. Press Florida, Gainesville.
–, C.S. Berg, B. Harrison, and D.T. Yorks. 2009. Notes on an unexpected decline of a population of *Corallus grenadensis* (Squamata: Boidae) in Grenada, West Indies. S. Amer. J. Herpetol. 4: 186–192.
Herrel, A., B. Vanhooydonck, R. Joachim and D.J. Irschick. 2004. Frugivory in polychrotid lizards: Effects of body size. Oecologia 140:160–168.
Heselhaus, R. and M. Schmidt. 1990. Karibische *Anolis*. Herpetol. Fachverlag, Münster.
Hite, J.L., C.A. Rodríguez Gómez, S.C. Larimer, A.M. Díaz-Lameiro, and R. Powell. 2008. Anoles of St. Vincent (Squamata: Polychrotidae): Population densities and structural habitat use. Carib. J. Sci. 44:102–115.
Holt, R. 1977. Untitled, p. 30–35. *In* E.E. Williams (ed.), The Third *Anolis* Newsletter. Mus. Comp. Zool., Harvard Univ., Cambridge, Massachusetts.
Irschick, D.J. and J.B. Losos. 1996. Morphology, ecology, and behavior of the twig anole, *Anolis angusticeps*, p. 291–301. *In* R. Powell and R.W. Henderson (eds.), Contributions to West Indian Herpetology: A Tribute to Albert Schwartz. Soc. Study Amphib. Rept. Contrib. Herpetol. (12), Ithaca, New York.
–, L.J. Vitt, P.A. Zani, and J.B. Losos. 1997. A comparison of evolutionary radiations in mainland and Caribbean *Anolis* lizards. Ecology 78:2191–2203.
Jackman, T.R., A. Larson, K. de Queiroz, and J.B.

Losos. 1997. Phylogenetic studies of convergent adaptive radiations in Caribbean *Anolis* lizards, p. 535–557. *In* T.J. Givnish and K.J. Sytsma (eds.), Molecular Evolution and Adaptive Radiation. Cambridge Univ. Press, Oxford.

–, –, –, and –. 1999. Phylogenetic relationships and tempo of early diversification in *Anolis* lizards. Syst. Biol. 48:254–285.

Jenssen, T.A. 1978. Display diversity in anoline lizards and problems of interpretation, p. 269–285. *In* N. Greenberg and P.D. MacLean (eds.), Behavior and Neurology of Lizards. An Interdisciplinary Colloquium. Natl. Inst. Mental Health, Rockville, Maryland.

Johnson, G.L. 1927. Contributions to the comparative anatomy of the reptilian and the amphibian eye, chiefly based on ophthalmological examination. Philos. Trans. R. Soc. Lond., Ser. B, Cont. Paps. Biol. Char. 215:315–353.

Johnson, T.H. 1988. Bodiversity and Conservation in the Caribbean. Profiles of Selected Islands. ICBP Monogr. (1). Intl. Counc. Bird Preserv., Cambridge, United Kingdom.

Kluge, A.G. 1984. Type specimens of reptiles in the University of Michigan Museum of Zoology. Misc. Publ. Mus. Zool. Univ. Michigan (167):1–87.

Kraus, F. 2009. Alien Reptiles and Amphibians: A Scientific Compendium and Analysis. Invading Nature — Springer Series in Invasion Ecology, vol. 4. Springer, New York.

Lazell, J.D., Jr. 1972. The anoles (Sauria, Iguanidae) of the Lesser Antilles. Bull. Mus. Comp. Zool. (143):1–115.

–. 1980. Lesser Antillean *Anolis* (Sauria, Iguanidae) in the British Museum. J. Herpetol. 14:194–195.

Lever, C. 2003. Naturalized Reptiles and Amphibians of the World. Oxford Univ. Press., Oxford, United Kingdom.

Lister, B.C. 1976. The nature of niche expansion in West Indian *Anolis* lizards II: Evolutionary components. Evolution 30:677–692.

Losos, J.B. 1990. A phylogenetic analysis of character displacement in Caribbean *Anolis* lizards. Evolution 44:558–569.

–. 2009. Lizards in an Evolutionary Tree, Ecology and Adaptive Radiation of Anoles. Univ. California Press, Berkeley.

– and K. de Queiroz. 1997. Evolutionary consequences of ecological release in Caribbean *Anolis* lizards. Biol. J. Linn. Soc. 61:459–483.

–, J.C. Marks, and T.W. Schoener. 1993. Habitat use and ecological interactions of an introduced and a native species of *Anolis* lizard on Grand Cayman, with a review of the outcomes of anole introductions. Oecologia 95:525–532.

MacLean, W.P., R. Kellner, and H. Dennis. 1977. Island lists of West Indian amphibians and reptiles. Smithson. Herpetol. Info. Serv. (40):1–47.

MacPhee, R.D.E., R. Singer, and M. Diamond. 2000. Late Cenozoic land mammals from Grenada, Lesser Antilles Island Arc. Amer. Mus. Novitates (3302):1–20.

Macrini, T.E., D.J. Irschick, and J.B. Losos. 2003. Ecomorphological differences in toepad characteristics between mainland and island anoles. J. Herpetol. 37:52–58.

Maher, C.R. and D.F. Lott. 2000. A review of ecological determinants of territoriality within vertebrate species. Amer. Midl. Nat. 143:1–29.

Malhotra, A. and R.S. Thorpe. 1999. Reptiles and Amphibians of the Eastern Caribbean. MacMillan Educ. Ltd., London.

McTaggart, A.L., D.P. Quinn, J.S. Parmerlee, Jr., R.W. Henderson, and R. Powell. 2011. A rapid assessment of reptilian diversity on Union Island, St. Vincent and the Grenadines. So. Amer. J. Herpetol. 6:59–65.

Mertens, R. 1968. Über Reptilienbastarde, V. Senckenbergiana Biol. 49:1–12.

–. 1969. Herpetologische Beobachtungen auf der Insel Tobago. Salamandra 5:63–70.

–. 1974. Ergänzende Bemerkungen zur "Herpetofauna tobagana." Salamandra 10:78–79.

Moermond, T.C. 1974. Untitled, p. 28–31. *In* E.E. Williams (ed.), The Second *Anolis* Newsletter. Mus. Comp. Zool., Harvard Univ., Cambridge, Massachusetts.

–. 1977. Untitled, p. 74–85. *In* E.E. Williams (ed.), The Third *Anolis* Newsletter. Mus. Comp. Zool., Harvard Univ., Cambridge, Massachusetts.

–. 1986. A mechanistic approach to the structure of animal communities: *Anolis* lizards and birds. Amer. Zool. 26:23–37.

Mole, R.R. and F.W. Urich. 1894. A preliminary list of the reptiles and batrachians of the island of Trinidad. J. Trinidad Fld. Nat. Club 2:77–90.

Murphy, J.C. 1996. Crossing Bond's Line: The herpetofaunal exchange between the eastern Caribbean and mainland South America, p. 207–216. *In* R. Powell and R.W. Henderson (eds.), Contributions to West Indian Herpetology: A Tribute to Albert Schwartz. Soc. Study Amphib. Rept. Contrib. Herpetol. (12), Ithaca, New York.

–. 1997. Amphibians and Reptiles of Trinidad and Tobago. Krieger Publ. Co., Malabar, Florida.

Nicholson, K.E., R.E. Glor, J.J. Kolbe, A. Larson, S.B. Hedges, and J.B. Losos. 2005. Mainland colonization by island lizards. J. Biogeogr. 32:929–938.

–, L.J. Harmon, and J.B. Losos. 2007. Evolution of *Anolis* lizard dewlap diversity. PLoS ONE 2007: 1–12.

O'Hare, R.J. and E.E. Williams. 1994. The *Anolis* Handlist. Hypercard document, Mus. Comp. Zool., Harvard Univ., Cambridge, Massachusetts.

Ono, K.A. 1981. The Effects of Habitat Structure on the Social Behavior and Spacing Patterns of Juvenile Lizards (*Anolis aeneus*). Ph.D. Diss., Univ. California, Davis.

Ord, T.J. and D.T. Blumstein. 2002. Size constraints and the evolution of display complexity: Why do large lizards have simple displays? Biol. J. Linn. Soc. 76:145–161.

–, –, and C.S. Evans. 2001. Intrasexual selection predicts the evolution of signal complexity in lizards. Proc. R. Soc. Lond. B 268:737–744.

–, –, and –. 2002. Ecology and signal evolution in lizards. Biol. J. Linn. Soc. 77:127–148.
– and E.P. Martins. 2006. Tracing the origins of signal diversity in anole lizards: Phylogenetic approaches to inferring the evolution of complex behaviour. Anim. Behav. 71:1411–1429.
Parker, H.W. 1933. Some amphibians and reptiles from the Lesser Antilles. Ann. Mag. Nat. Hist. 10: 151–158.
–. 1935a. The lizards of Trinidad. Trop. Agric. 12:65–70.
–. 1935b. The frogs, lizards, and snakes of British Guiana. Proc. Zool. Soc. Lond. 105:505–530.
Pendlebury, G.B. 1974. Stomach and intestinal contents of *Corallus enydris*: A comparison of island and mainland specimens. J. Herpetol. 8:241–244.
Perry, G., B.W. Buchanan, R.N. Fisher, M. Salmon, and S.E. Wise. 2008. Effects of artificial night lighting on amphibians and reptiles in urban environments, p. 239–256. *In* J.C. Mitchell, R.E. Jung, and B. Bartholomew (eds.), Urban Herpetology. Soc. Study Amphib. Rept. Herpetol. Conserv. (3), Salt Lake City, Utah.
– and T. Garland, Jr. 2002. Lizard home ranges revisited: Effects of sex, body size, diet, habitat, and phylogeny. Ecology 83:1870–1885.
Peters, J.A. and R. Donoso-Barros. 1970. Catalogue of the Neotropical Squamata. Part II. Lizards and Amphisbaenians. Bull. U.S. Natl. Mus. (297):viii + 293 p.
Poche, A.J., Jr., R. Powell, and R.W. Henderson. 2005. Sleep-site selection and fidelity in Grenadian anoles (Reptilia: Squamata: Polychrotidae). Schlafplatzwahl und -treue bei Echsen der Gattung *Anolis* aus Grenada (Reptilia: Squamata: Polychrotidae). Herpetozoa 18:3–10.
Poe, S. 1999. Untitled, p. 99–104. *In* J.B. Losos and M. Leal (eds.), *Anolis* Newsletter V. Washington Univ., St. Louis, Missouri.
–. 2004. Phylogeny of anoles. Herpetol. Monogr. 18: 37–89.
–, C. Yañez-Miranda, and E. Lehr. 2008. Notes on variation in *Anolis boettgeri* Boulenger 1911, assessment of the status of *Anolis albimaculatus* Henle and Ehrl 1991, and description of a new species of *Anolis* (Squamata: Iguania) similar to *Anolis boettgeri*. J. Herpetol. 42:251–259.
—, J.T. Giermakowski, I. Latella, E.W. Schaad, E.P. Hulebak, and M.J. Ryan. 2011. Ancient colonization predicts recent naturalization in *Anolis* lizards. Evolution 65:1195–1202.
Powell, R. and R.W. Henderson. 2008. Urban herpetology in the West Indies, p. 389–404. *In* J.C. Mitchell, R.E. Jung, and B. Bartholomew (eds.), Urban Herpetology. Soc. Study Amphib. Rept., Herpetol. Conserv. (3), Salt Lake City, Utah.
–, –, K. Adler, and H.A. Dundee. 1996. An annotated checklist of West Indian amphibians and reptiles, p. 51–93 + 8 pl. *In* R. Powell and R.W. Henderson (eds.), Contributions to West Indian Herpetology: A Tribute to Albert Schwartz. Soc. Study Amphib. Rept. Contrib. Herpetol. (12), Ithaca, New York.
Quesnel, V.C. and J.S. Kenny. 1959. Anoles of the Eastern Caribbean: Two sibling species of anoles in Trinidad. Bull. Mus. Comp. Zool. 121:189–191.
Quinn, D.P., A.L. McTaggart, T.A. Bellah, E.J. Bentz, L.G. Chambers, H.D. Hedman, R.R. John, D.N. Muñiz Pagan, and M.J. Rivera Rodríguez. 2010. The reptiles of Union Island, St. Vincent and the Grenadines. Rept. & Amphib. 17:222–233.
–, –, J.S. Parmerlee, Jr., R.W. Henderson, and R. Powell. 2011. *Corallus grenadensis* (Grenada Bank Treeboa, Congo Snake). Habitat and abundance. Herpetol. Rev. 42: in press.
Regal, P.J. 1983. The adaptive zone and behavior of lizards, p. 105–118. *In* R.B. Huey, E.R. Pianka, and T.W. Schoener (eds.), Lizard Ecology: Studies of a Model Organism. Harvard Univ. Press, Cambridge, Massachusetts.
Reinhardt, J. and C.F. Lütken. 1862 (1863). Bidrag til det vestindiske Øeriges og navnligen til de dansk-vestindiske Øers Herpetologie. Vidensk. Medd. Naturh. Foren. Kjøbenhavn 10–18:153–291.
Roughgarden, J. 1995. *Anolis* Lizards of the Caribbean: Ecology, Evolution, and Plate Tectonics. Oxford Univ. Press, New York.
– and E. Fuentes. 1977. The environmental determinants of size in solitary populations of West Indian *Anolis* lizards. Oikos 29:44–51.
–, D. Heckel, and E.R. Fuentes. 1983. Coevolutionary theory and the biogeography and community structure of *Anolis*, p. 371–410. *In* R.B. Huey, E.R. Pianka, and T.W. Schoener (eds.), Lizard Ecology: Studies of a Model Organism. Harvard Univ. Press, Cambridge, Massachusetts.
– and S. Pacala. 1989. Taxon cycle among *Anolis* lizard populations: Review of evidence, p. 403–432. *In* D. Otte and J.A. Endler (eds.), Specialization and Its Consequences. Sinauer, Sunderland, Massachusetts.
–, W. Porter, and D. Heckel. 1981. Resource partitioning of space and its relationship to body temperature in *Anolis* lizard populations. Oecologia 50:256–264.
Ruthven, A.G. 1923. The reptiles of the Dutch Leeward Islands. Occas. Pap. Michigan Mus. Zool. (143):1–10.
Savage, J.M. and C. Guyer. 1989. Infrageneric classification and species composition of the anole genera, *Anolis, Ctenonotus, Dactyloa, Norops*, and *Semiurus* (Sauria: Iguanidae). Amphib.-Rept. 10:105–116.
Schaad, E.W. and S. Poe. 2010. Patterns of ecomorphological convergence among mainland and island *Anolis* lizards. Biol. J. Linn. Soc. 101:852–859.
Schall, J.J. and C.M. Staats. 1997. Parasites and the evolution of extravagant male characters: *Anolis* lizards on Caribbean islands as a test of the Hamilton-Zuk hypothesis. Oecologia 111:543–548.
Schmidt, J. 1980. Warum eigentlich immer *Anolis carolinensis*? Teil 2. Herpetofauna 2(5):22–25.
Schoener, T.W 1969. Size patterns in West Indian *Anolis* lizards. I. Size and species diversity. Syst. Zool. 18:486–401

–. 1970a. Size patterns in West Indian *Anolis* lizards. II. Correlations with the size of particular sympatric species displacement and convergence. Am. Nat. 104:155–174.
–. 1970b. Nonsynchronous spatial overlap of lizards in patchy habitats. Ecology 51:408–418.
–. 1989. Should hindgut contents be included in lizard dietary compilations? J. Herpetol. 23:455–458.
– and G.C. Gorman. 1968. Some niche differences in three Lesser Antillean lizards of the genus *Anolis*. Ecology 49:819–830.
– and A. Schoener. 1982. Intraspecific variation in home range size in some *Anolis* lizards. Ecology 63:809–823.
Schulte, J.A., II and F. Moreno-Roark. 2010. Live birth among iguanian lizards predates Pliocene Pleistocene glaciations. Biol. Lett. 6:216–218.
Schwartz, A. and R.W. Henderson. 1985. A guide to the identification of the amphibians and reptiles of the West Indies exclusive of Hispaniola. Milwaukee Pub. Mus., Milwaukee, Wisconsin.
– and –. 1988. West Indian amphibians and reptiles: a check list. Milwaukee Pub. Mus. Contrib. Biol. Geol. (74):1–264.
– and –. 1991. Amphibians and Reptiles of the West Indies: Descriptions, Distributions, and Natural History. Univ. Florida Press, Gainesville.
– and R. Thomas. 1975. A check list of West Indian amphibians and reptiles. Carnegie Mus. Nat. Hist. Spec. Publ. (1):1–216.
Schwenk, K., S.K. Sessions, and D.M. Peccinini Seale. 1982. Karyotypes of the basiliscine lizards *Corytophanes cristatus* and *Corytophanes hernandesii*, with comments on the relationship between chromosomal and morphological evolution in lizards. Herpetologica 38:493–501.
Shine, R. and J.J. Bull. 1979. The evolution of live bearing in lizards and snakes. Am. Nat. 113:905–923.
Shochat, D. and H.C. Dessauer. 1977. Hypotheses concerning the phylogeny of *Anolis*, p. 184–191. *In* E.E. Williams (ed.), The Third *Anolis* Newsletter. Mus. Comp. Zool., Harvard Univ., Cambridge, Massachusetts.
– and –. 1981. Comparative immunological study of albumins of *Anolis* lizards of the Caribbean islands. Comp. Biochem. Physiol. 68A:67–73.
Simmons, P.M., B.T. Greene, K.E. Williamson, R. Powell, and J.D. Parmerlee, Jr. 2005. Ecological interactions within a lizard community on Grenada. Herpetologica 61:124–134.
Sites, J.W., Jr. and R.W. Murphy. 1991. Isozyme evidence for independently derived, duplicate G3PDH loci among squamate reptiles. Can. J. Zool. 69:2381–2396.
Smith, A.T. and M.M. Peacock. 1990. Conspecific attraction and the determination of metapopulation colonization rates. Conserv. Biol. 4:320–323.
Smith, G.R. and R.E. Ballinger. 2001. The ecological consequences of habitat and microhabitat use in lizards: A review. Contemp. Herpetol. 2001(3) (www.contemporaryherpetology.org/ch/2001/3/).
Staats, C.M. and J.J. Schall. 1996. Malarial parasites (*Plasmodium*) of *Anolis* lizards: Biogeography in the Lesser Antilles. Biotropica 28:388–393.
Stamps, J.A. 1973. Displays and social organization in female *Anolis aeneus*. Copeia 1973:264–272.
–. 1975. Courtship patterns, estrus periods and reproductive condition in a lizard, *Anolis aeneus*. Physiol. Behav. 14:531–35.
–. 1976a. Egg retention, rainfall and egg laying in a tropical lizard *Anolis aeneus*. Copeia 1976:759–764.
–. 1976b. Rainfall, activity, and social behavior in the lizard *Anolis aeneus*. Anim. Behav. 24:603–608.
–. 1977a. The relationship between resource competition, risk, and aggression in a tropical territorial lizard. Ecology 58:349–358.
–. 1977b. Rainfall, moisture and dry season growth rates in *Anolis aeneus*. Copeia 1977:415–419.
–. 1977c. The function of the survey posture in *Anolis* lizards. Copeia 1977:756–758.
–. 1977d. Social behavior and spacing patterns in lizards, p. 265–334. *In* C. Gans and D.W. Tinkle (eds.), Biology of the Reptilia. Vol. 7. Ecology and Behaviour A. Academic Press, London.
–. 1977e. Untitled, p. 101–103. *In* E.E. Williams (ed.), The Third *Anolis* Newsletter. Mus. Comp. Zool., Cambridge, Massachusetts.
–. 1978. A field study of the ontogeny of social behavior in the lizard *Anolis aeneus*. Behaviour 66: 1–31.
–. 1983a. The relationship between ontogenetic habitat shift, competition and predation avoidance in a juvenile lizard (*Anolis aeneus*). Behav. Ecol. Sociobiol. 12:19–33.
–. 1983b. Territoriality and the defence of the predator refuges in juvenile lizards. Anim. Behav. 31: 857–870.
–. 1983c. Sexual selection, sexual dimorphism, and territoriality, p. 169–204. *In* R.B. Huey, E.R. Pianka, and T.W. Schoener (eds.), Lizard Ecology: Studies of a Model Organism. Harvard Univ. Press, Cambridge, Massachusetts.
–. 1984a. The growth costs of territorial overlap: Experiments with juvenile lizards (*Anolis aeneus*). Behav. Ecol. Sociobiol. 15:115–119.
–. 1984b. Rank dependent compromises between growth and predator protection in lizard dominance hierarchies. Anim. Behav. 32:1101–1107.
–. 1987a. Conspecifics as cues to territory quality: A preference of juvenile lizards (*Anolis aeneus*) for previously used territories. Am. Nat. 129:629–642.
–. 1987b. The effect of familiarity with a neighborhood on territorial acquisition. Behav. Ecol. Sociobiol. 21:273–277.
–. 1988a. Conspecific attraction and aggregation in territorial species. Am. Nat. 131:329–347.
–. 1988b. The effect of body size on habitat and territory choice in juvenile lizards. Herpetologica 44: 369–376.
–. 1990a. Starter homes for young lizards. Nat. Hist. (10):40–44.
–. 1990b. The effect of contender pressure on territo-

ry size and overlap in seasonally territorial species. Amer. Nat. 135:614–632.
–. 1991a. The effect of conspecifics on habitat selection in territorial species. Behav. Ecol. Sociobiol. 28:29–36.
–. 1991b. Untitled, p. 141–144. *In* J.B. Losos and G.C. Mayer (eds.), *Anolis* Newsletter IV. Div. Amphib. Rept., Natl. Mus. Nat. Hist., Smithson. Inst., Washington, D.C.
–. 1992. Simultaneous versus sequential settlement in territorial species. Amer. Nat. 139:1070–1088.
–. 1993. Sexual size dimorphism in species with asymptotic growth after maturity. Biol. J. Linn. Soc. 50:123–145.
–. 1994. Territorial behavior: Testing the assumptions. Adv. Study Behav. 23:173–232.
–. 1995. Using growth-based models to study behavioral factors affecting sexual size dimorphism. Herpetol. Monogr. 9:75–87.
– and R.M. Andrews. 1992. Estimating asymptotic size using the largest individuals per sample. Oecologia (Berlin) 92:503–512.
– and G.W. Barlow. 1973. Variation and stereotypy in the displays of *Anolis aeneus* (Sauria: Iguanidae). Behaviour 47:67–94.
– and M. Buechner. 1985. The territorial defense hypothesis and the ecology of insular vertebrates. Quart. Rev. Biol. 60:155–181.
– and D.P. Crews. 1976. Seasonal changes in reproduction and social behavior in the lizard *Anolis aeneus*. Copeia 1976:467–476.
– and P.K. Eason. 1989. Relationship between spacing behavior and growth rates: A field study of lizard feeding territories. Behav. Ecol. Sociobiol. 25:99–107.
– and V.V Krishnan. 1994a. Territory acquisition in lizards: I. First encounters. Anim. Behav. 47:1375–1385.
– and –. 1994b. Territory acquisition in lizards: II. Establishing social and spatial relationships. Anim. Behav. 47:1387–1400.
– and –. 1995. Territory acquisition in lizards: III. Competing for space. Anim. Behav. 49:679–693.
– and –. 1997a. Sexual bimaturation and sexual size dimorphism in animals with asymptotic growth after maturity. Evol. Ecol. 11:21–39.
– and –. 1997b. Functions of fights in territory establishment. Am. Nat. 150:393–405.
– and –. 1998. Territory acquisition in lizards. IV. Obtaining high status and exclusive home ranges. Anim. Behav. 55:461–472.
–, –, and R.M. Andrews. 1994. Analyses of sexual size dimorphism using growth-based null models. Copeia 1994:598–612.
–, J.B. Losos, and R.M. Andrews. 1997. A comparative study of population density and sexual size dimorphism in lizards. Am. Nat. 149:63–90.
– and S.K. Tanaka. 1981a. The influence of food and water on growth rates in a tropical lizard (*Anolis aeneus*). Ecology 61:33–40.
– and –. 1981b. The relationship between food and social behavior in juvenile lizards (*Anolis aeneus*). Copeia 1981:422–434.
–, –, and V.V. Krishnan. 1981. The relationship between selectivity and food abundance in a juvenile lizard. Ecology 62:1079–1092.
– and K. Tollestrup. 1984. Prospective resource defense in a territorial species. Amer. Nat. 123:99–114.
Thorpe, R.S. and A.G. Stenson. 2003. Phylogeny, paraphyly and ecological adaptation of the colour and pattern in the *Anolis roquet* complex on Martinique. Mol. Ecol. 12:117–132.
Timmermann, A., B. Dalsgaard, J.M. Olesen, L.H. Andersen, and A.M. Martín González. 2008. *Anolis aeneus* (Grenadian Bush Anole). *Anolis richardii* (Grenadian Tree Anole). Nectivory/pollination. Herpetol. Rev. 39:84–85.
Underwood, G. 1952. Reptiles of the Eastern Caribbean. Caribbean Affairs. Dept. Extra-Mural Stud., Univ. W. Indies. Port of Spain, Trinidad.
–. 1959. The anoles of the eastern Caribbean, Part III. Revisionary notes. Bull. Mus. Comp. Zool. 121:191–226.
–. 1962. Reptiles of the Eastern Caribbean. Carib. Affairs 1:1–192.
van Beest, P. and Z.L. Haberham. 2003. Een gebruikaanwijzing voor één van de meest interssante groepen terrarumdieren: Anolissen Deel I. Lacerta 61(2):53–64.
Vitt, L.J. and J.P. Caldwell. 2009. Herpetology. An Introductory Biology of Amphibians and Reptiles. 3rd ed. Burlington, Massachusetts.
Walley, H.D. 1997. Bibliography and scientific name index to herpetological publications by the University of Michigan Museum of Zoology 1913–1995. Smithson. Herpetol. Info. Serv. (114):1–63.
Walls, G.L. 1942. The Vertebrate Eye and its Adaptive Radiation. Cranbrook Inst. Sci. Bull. (19):xiv + 785 p.
Werner, F. 1900. Ueber Reptilien und Batrachier aus Colombien und Trinidad, II. Verh. Zool.-Bot. Ges. Wien 50:262–272.
White, G. and A. Hailey. 2006. The establishment of *Anolis wattsi* as a naturalized exotic lizard in Trinidad. Appl. Herpetol. 3:111–126.
Wijffels, L. 1980. Natuurlijk. Bull. Nederl. Studiegr. Anolissen 3(2):5–6.
–. 1997. *Anolis aeneus*, een geslaagd emigrant. Een bijdrage over emigratie bij anolissen. Lacerta 56(2):39–43.
Williams, E.E. 1969. The ecology of colonization as seen in the zoogeography of anoline lizards on small islands. Quart. Rev. Biol. 44:345–389.
–. 1972. The origin of faunas. Evolution of lizard congeners in a complex island fauna: A trial analysis, p. 47–89. *In* M.K.H.T. Dobzhansky and W.C. Steere (eds.), Evolutionary Biology. Vol. 6. Appleton-Century-Crofts, New York.
–. 1976. West Indian anoles: a taxonomic and evolutionary summary 1. Introduction and a species list. Breviora (440):1–21.
–. 1977. Anoles out of place: introduced anoles. p. 110–118. *In* E.E. Williams (ed.), The Third *Anolis* Newsletter. Mus. Comp. Zool., Harvard Univ., Cambridge Massachusetts.

–. 1983. Ecomorphs, faunas, island size, and diverse end points in island radiations of *Anolis*, p. 326–370. *In* R.B. Huey, E.R. Pianka, and T.S. Schoener (eds.), Lizard Ecology. Studies of a Model Organism. Harvard Univ. Press, Cambridge, Massachusetts.

–, H. Rand, A.S. Rand, and R.J. O'Hare. 1995. A computer approach to the comparison and identification of species in difficult taxonomic groups. Breviora (502):1–47.

Williamson, K.E., A.J. Poche, Jr., B.T. Greene, B.R. Harris, J.M. Germano, P.M. Simmons, D.T. Yorks, R. Powell, J.S. Parmerlee, Jr., and R.W. Henderson. 2002. Herpetofauna of Hog Island, Grenada. Herpetol. Bull. (82):26–29.

Wunderle, J.M., Jr. 1981. Avian predation upon *Anolis* lizards on Grenada, West Indies. Herpetologica 37:104–108.

Wyles, J.S. and G.C. Gorman. 1980. The albumin immunological and Nei electrophoretic distance correlation: a calibration for the saurian genus *Anolis* (Iguanidae). Copeia 1980:66–71.

Yang, S.Y., M. Soulé, and G.C. Gorman. 1974. *Anolis* lizards of the eastern Caribbean: A case study in evolution. I. Genetic relationships, phylogeny, and colonization sequences of the *roquet* group. Syst. Zool. 23:387–399.

Rebecca R. John, Departments of Environmental Studies and Biology, University of California, Santa Cruz, CA 95064, USA (lizardgeeky@yahoo.com), **Hayden D. Hedman**, Department of Ecology and Evolutionary Biology, University of Colorado, Boulder, CO 80301, USA (hayden.hedman@colorado.edu), and **Robert Powell**, Department of Natural Sciences, Avila University, Kansas City, MO 64145, USA (robert.powell@avila.edu).

Primary editor for this account, Andrew H. Price.

Published 30 April 2012 and Copyright © 2012 by the Society for the Study of Amphibians and Reptiles.